AMENDMENT TO THE SPECIFICATION

Please delete paragraph [0001] and "GOVERNMENT INTERESTS" and insert the following after paragraph [0002]:

GOVERNMENT INTERESTS

[0002] This invention was made with Government support under Grant No. NS39951, awarded by the National Institute of Health (NIH), and Grant No. NRI 2002-00798, awarded by the U.S. Dept. of Agriculture (USDA). The Government has certain rights in this invention.

Please replace paragraph [0003] with the following amended paragraph:

[0003] This invention relates to equol and its mechanism of action and use as a therapeutic compound for treating and preventing physiological and pathophysiological conditions mediated by androgens.

Please replace paragraph [0180] with the following amended paragraph:

[0180] Adult female rats are placed on the Phyto-600 or Phyto-Free diet treatments from 50 to 215 days of age. Prior to 50 days of age the animals can be raised on a diet that contains approximately Phyto-200 ppm of isoflavones, or similar a diet such as those used by animal suppliers. At 215 days of age, Phyto-600-fed females weigh significantly less than Phyto-Free-fed females, representing about a 7% reduction in body weight, shown in FIGURE 24. White adipose tissue in Phyto-600-fed females at 215 days of age is significantly reduced by about 30% compared to that of females fed the Phyto-Free diet, shown in FIGURE 25. Correspondingly, serum leptin levels in the Phyto-600-fed females were significantly lower than those of Phyto-Free-fed, shown in FIGURE 26. Insulin levels were reduced in the Phyto-600-fed vs. Phyto-Free-fed females to a similar degree seen previously, but did not reach statistical significance, shown in FIGURE 27.